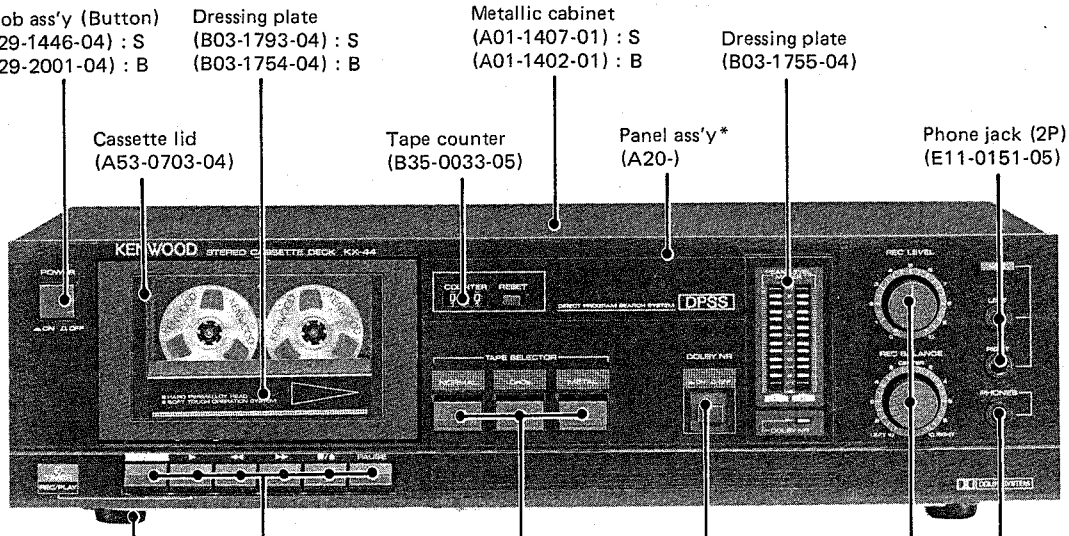
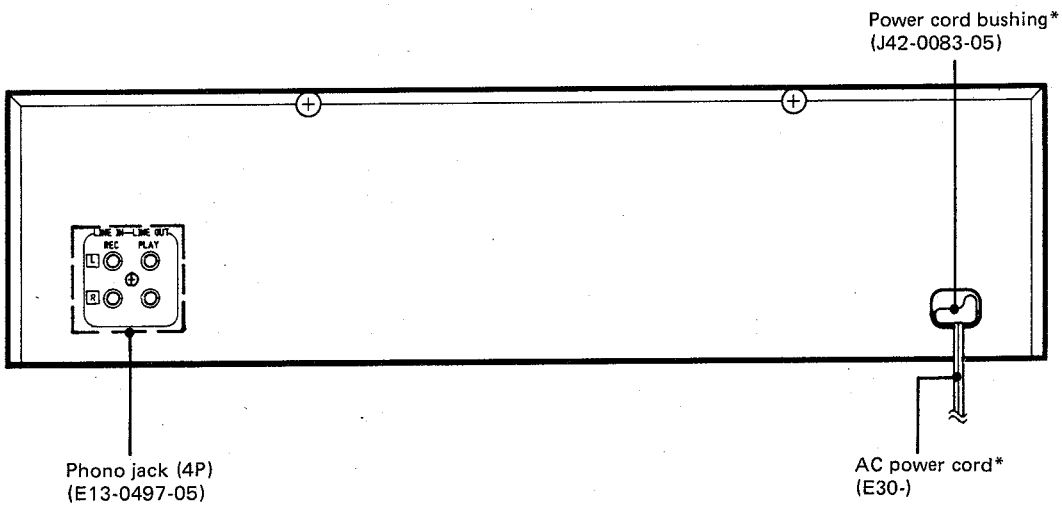
SERVICE MANUAL

KENWOOD

KX-44

STEREO CASSETTE DECK

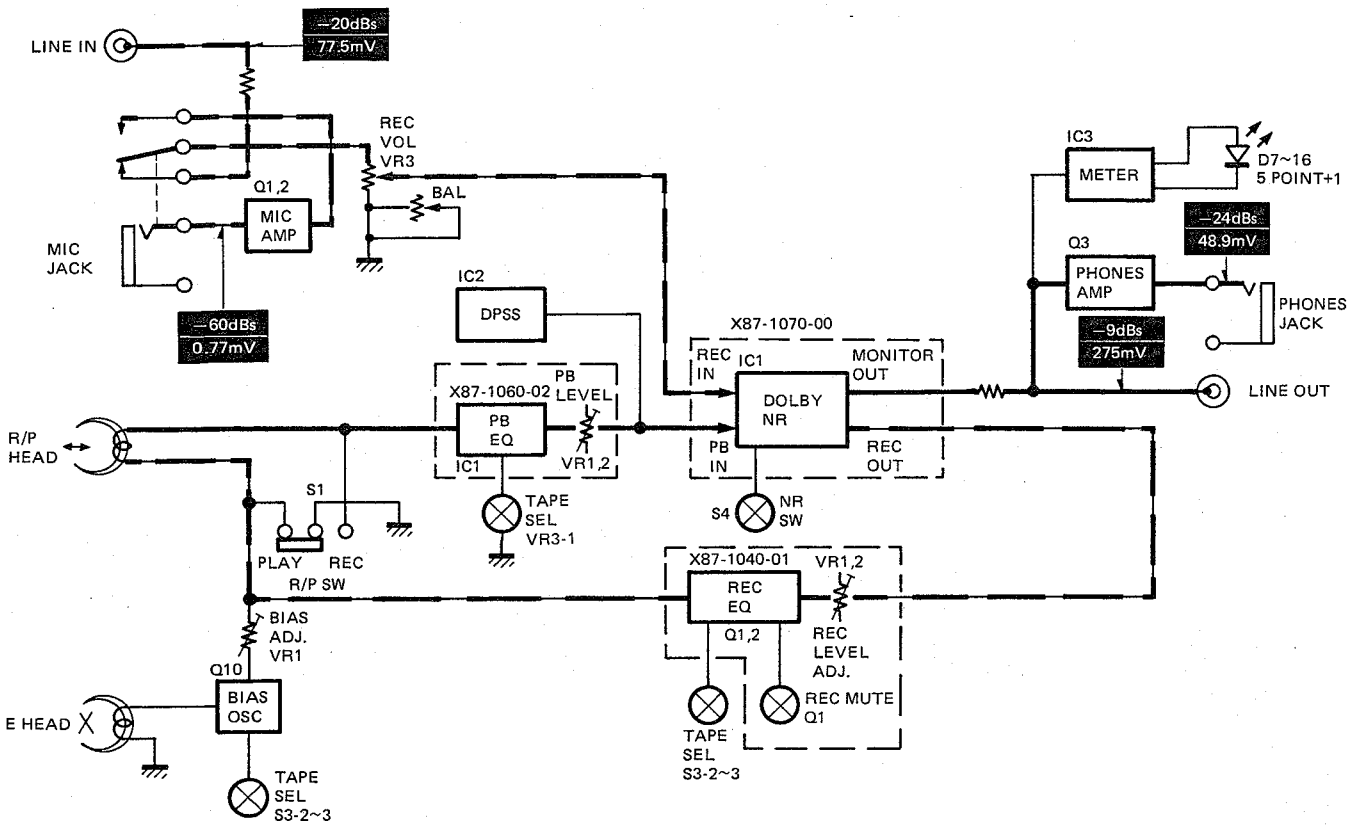




*** Refer to parts list on page 10.**
Photo is KX-44 (Black version).
S : Silver version.
B : Black version.

BLOCK LEVEL DIAGRAM/CIRCUIT DESCRIPTION

BLOCK LEVEL DIAGRAM



Description of Components

REC/PLAY (X28-1710-11)

Components	Functions	Operations
Q5,Q6	LINE MUTE	During PLAY or REC mode : OFF Controled by Q14.
Q9	SOLENOID CONTROL	During CUE or REV mode : ON, PLAY mode : OFF
Q10	BIAS OSC	
Q11	MUTE CONTROL SW	ON when the Power is switched on (Power off mute control)
Q12	MUTE CONTROL SW	During PLAY or REC mode : ON
Q13	MUTE CONTROL SW	OFF when the Q12 is turned on, and ON when the power is switched on.
Q14	MUTE CONTROL SW	ON when the Q13 is turned on, and instantly ON while REC ⟷ STOP mode is switched.
Q15	AVR	For Dolby amp unit
Q16	BIAS OSC CONT.	ON when the Q17 is turned on.
Q17	BIAS OSC CONT.	ON when the Q16 is turned off as well as the REC mode.

PLAYBACK AMP (X87-1060-02)

Components	Functions	Operations
IC1	P.B EQ. AMP	

DOLBY NR (X87-1070-00)

Components	Functions	Operations
IC1	DOLBY	DOLBY B type

REC AMP (X87-1040-01)

Components	Functions	Operations
Q1,Q2	REC EQ. AMP	
Q3,Q4	REC MUTE SWITCH	

OPERATION DESCRIPTION

Controls, indicators and connectors

❶ POWER switch
Press to turn on power. Press it again to turn power off.

❷ Cassette compartment
To insert or remove a cassette tape, press the Stop/Eject key so that the cassette compartment slides forward. To close it, press the compartment into position until it locks.

❸ Tape Counter and Reset Button
The tape counter provides a means of locating selections on the tape. When starting a recording, set the counter to "000" by depressing the reset button.

❹ PEAK LEVEL meters
Indicates recording or output peak levels.

❺ REC LEVEL control
When recording with microphones or with other program sources (such as a tuner or turntable) connected to the LINE IN jacks, adjust input level while observing the PEAK LEVEL meters.

Note:
Recording through the LINE IN cables is not possible when microphones are plugged into the MIC jacks. Disconnect the microphones before recording from LINE sources.

❻ MIC jacks
Plug your microphone(s) into these jacks.

❼ PHONES jack
Plug stereo headphones into this jack to monitor recordings or tape playback.

❽ REC BALANCE control
This control permits balancing the left and right recording levels. When the right level is lower than the left, turn the control to the right. When the left is lower than the right, turn it to the left. In the normal operation, set the control to the center.

❾ DOLBY NR indicator
This indicator lights when the DOLBY NR switch is pressed.

❿ DOLBY NR* switch
Set to ON to play a tape that has been recorded with Dolby NR or to record a tape with Dolby NR.
* Noise reduction manufactured under license from Dolby laboratories Licensing Corporation.
"DOBLY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

⓫ TAPE SELECTOR switches
Set record and playback characteristics to optimize performance for the particular type of tape in use.

⓬ PAUSE key
Pressing this key during playback or recording temporarily stops the current operation. To release the pause state, press the PAUSE key.

⓭ Stop/Eject key (□ /⏏)
Depressing this key stops any cassette deck operation such as recording, playback, fast forwarding, rewinding, and DPSS operation.
Depressing this key slides the cassete compartment forward

⓮ Fast forward key (▷▷)
Pressing this key fast forwards the tape. Depressing it during playback initiates playback of the tune after the current one.

⓯ Rewind key (◁◁)
Pressing this key alone rewinds the tape. Depressing it during playback results in repeat playback of the current tune.

⓰ Play key (▷)
Press to play tape.

⓱ Record key (REC)
Depress to record. This key cannot be depressed if there is no cassette in place, or if the record lockout tab on the cassette has been broken off to preserve a previous recording

⓲ LINE IN jack
Connect to the Tape Rec jacks of your amplifier or receiver using the audio cables (supplied).

⓳ LINE OUT jack
Connect to the Tape Play jacks of your amplifier or receiver using the audio cables (supplied).

⓴ Power cord
Plug into a convenient AC wall outlet.

OPERATION DESCRIPTION

Operating instructions

Playback procedures

1. Press the STOP/EJECT key to open the cassett holder, then load the cassette tape to be played.
2. Press the DOLBY NR switch when the cassette tape to be played was recorded with the Dobly NR system.
3. Press the POWER switch to turn the power on.
4. Press the ▷ (PLAY) key.
5. Adjust the volume control of your amplifier to the desired listening level.

DPSS playback

DPSS is an abbreviation for Direct Program Search System.
The DPSS requires unrecorded sections of about 4 seconds or more between two adjacent selections. Therefore, it does not operate properly in the following cases.

1. Tape on which conversation is recorded which contains numerous interruptions lasting more than about 4 seconds.
2. Recordings of classical music mostly consisting of pianissimo parts.
3. Tape which contains a high noise or hum level between selections.
4. Tape on which unrecorded sections are less than 3 seconds long.
5. Tape recorded at a low level.

Recording procedure

1. Turn on the power.
2. Insert a blank cassette.
3. Set the TAPE SELECTOR.
4. Set the DOLBY NR switch to ON if the recording is to be made using the noise reduction system.
5. Depress the pause key (PAUSE) then depress the record key (REC). This action puts the deck into the record mode but the tape does not move. Thus, you can make record level adjustments before starting to record.
6. Adjust record level by observing the PEAK LEVEL meters and adjusting the REC LEVEL control. See "Recording level" on this page.
7. Zero the tape counter by depressing the reset button. At the point in the program where the recording is to begin, depress the pause key (PAUSE) to release the tape and start recording.

Recording level

Recording level should be adjusted carefully to ensure optimum performance. If it is too low, signal-to-noise ratio suffers; if too high, distortion increases and high-frequency response drops.
The PEAK LEVEL meter normally lights up in the zone from 0 to +3 dB when the program source recording input is relatively high. Adjust the REC LEVEL control so that the meter light only occasionally reaches +6 dB. Make several trial recordings from various program sources to become familiar with the action of the PEAK LEVEL meters with various program source.

Timer stand by operation

By using the built-in TIMER STAND BY mechanism in combination with an audio timer (available from many dealers), the deck begins to record or play at any desired time.

Unattended recording

1. Connect the power cords to the components and set the timer so that power is supplied to each component. (Timer setting procedures vary with the type of timer used. Follow the instructions of the timer's manual.)
2. Turn on the power switches of the components to be used for recording.
3. Tune to the station desired and set the record level. (Refer to "Recording level".)
4. Set the volume control of the amplifier to its minimum setting.
5. Set the timer to the required time referring to the timer's instruction manual so that the power will be switched ON at the preset time.
6. Depress the record key (REC).
7. Power to the components will be switched ON at the preset time and recording will start.
8. Recording stops when the tape end is reached.

Note:
To ensure that the automatic shut off switch operates before the power is shut off, set the timer so that it operates for a little longer than the playing time of the tape.

Timer-controlled playback

1. Connect the timer as described for "Unattended recording".
2. Set the timer so that power is supplied to each component.
3. Turn on the power switches of the components used for playback.
4. Load a recorded tape and set each switch referring to "Playback procedure".
5. Adjust the volume control of the amplifier.
6. Rewind the tape to the start.
7. Set the timer to the required time.
8. Depress the play (▷) key.
9. The tape will automatically start playback at the preset time.

Full automatic stop mechanism

When the tape is fully wound or rewound after recording, playback, rewinding or fast-forwarding, the full automatic stop mechanism resets the function to prevent the pinch roller or the tape from being deformed.

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	CASSETTE TAPE DECK SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
CASSETTE DECK SECTION							
I REC/PLAY HEAD							
[1]	DEMAGNETIZATION	–	–	POWER: OFF Remove the cassette door.	REC/PLAY head	Demagnetize the REC/PLAY head with a head demagnetizer.	
[2]	CLEANING	–	–	PLAY	REC/PLAY head erase head, capstan, pinch roller.	Clean the REC/PLAY head erase head, capstan and pinch roller using a cotton swab slightly damped with alcohol.	
[3]	AZIMUTH	MTT-256 10kHz, -20dB	(B)	PLAY	Azimuth adjustment screw	Maximum	
DC MOTOR							
(i)	TAPE SPEED	MTT-111 MTT-111D	(B)	PLAY	Trimming potentiometer in the DC motor	Adjust the tape speed so that a 3kHz signal is produced at the center of the tape.	
II PC BOARD							
<1>	PLAYBACK LEVEL	MTT-256 315Hz, 0dB	(B)	PLAY	(X87-1060) VR2 (L) VR1 (R)	Output level: -9.0dBs	
<2>	BIAS CURRENT	(A) 1kHz, -30dBs 10kHz, -30dBs	(B)	Adjust REC LEVEL so that the REC monitor output becomes -29dBs at 1kHz, then record and reproduce signal of 1kHz and 10kHz in alternation.	(X28-1710) VR1 (L) VR2 (R)	Record 1kHz and 10kHz in alternation and adjust the variable resistors which control the bias current so that the same playback level is obtained.	
<3>	RECORD LEVEL	(A) 1kHz, -30dBs	(B)	Record and reproduce a 1kHz signal under the conditions set in <2>.	(X87-1040) VR2 (L) VR1 (R)	Adjust the variable resistors so that a playback level of -29dBs is obtained.	

REGLAGE

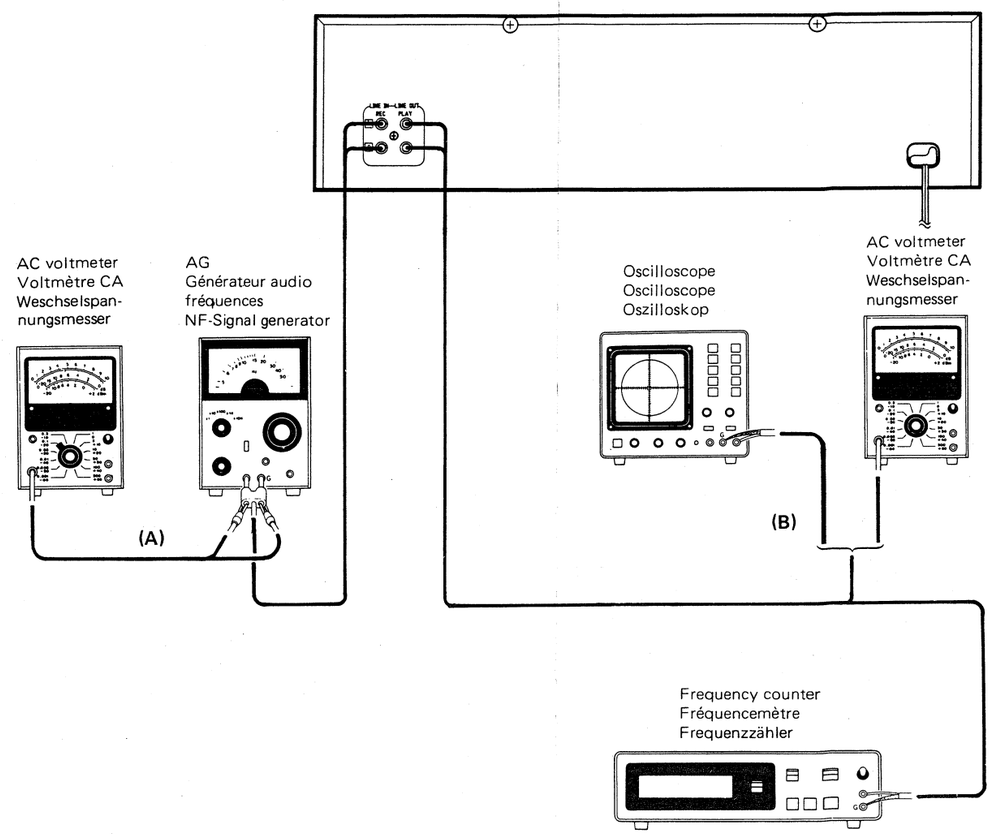
N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU MAGNETO -PHONE A CASSETTE	POINTS DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION DU MAGNETOPHONE		BIAS ADJ: CENTER, TAPE SELECTOR: NORMAL, MONITOR: TAPE				0dBs=0,775V	
I TETE D'ENREGISTREMENT/LECTURE							
[1]	DEMAGNETISATION	—	—	POWER: OFF Eloigner la porte.	Tête D'ENREGISTREMENT/ LECTURE	Demagnétiser la tête D'ENREGISTREMENT/LECTURE avec un démagnétiseur de tête.	
[2]	NETTOYAGE	—	—	PLAY	Tête D'ENREGISTREMENT/ LECTURE tête d'effacement, cabestan, galetpresseur.	Nettoyer la tête D'ENREGISTREMENT/LECTURE la tête d'effacement, le cabestan et le galetpresseur avec un coton-tige légèrement imbibé d'alcool.	
[3]	AZIMUT	MTT-256 10kHz. -20dB	(B)	PLAY	Vis d'azimut	Maximal	
MOTEUR CC							
(i)	VITESSE DE DEFILEMENT	MTT-111 MTT-111D	(B)	PLAY	Résistance ajustable du moteur CC	Régler la vitesse de bande de façon qu'un signal de 3kHz soit produit au centre de la bande.	
II PLAQUE IMPRIMEE							
<1>	NIVEAU DE LECTURE	MTT-256 315Hz. 0dB	(B)	PLAY	(X87-1060) VR2 (G) VR1 (D)	Niveau de sortie: -9.0dBs	
<2>	COURANT DE POLARISATION	(A) 1kHz. -30dBs 10kHz. -30dBs	(B)	Régler REC LEVEL de façon que la sortie de moniteur REC soit de -29dBs à 1kHz, puis enregistrer et reproduire des signaux de 1kHz et 10kHz en alternance.	(X28-1710) VR1 (G) VR2 (D)	Enregistrer un signal de 1kHz et 10kHz en alternance et ajuster les résistances variables qui commandent le courant de polarité de façon à obtenir le même niveau de lecture.	
<3>	NIVEAU D'ENREGISTREMENT	(A) 1kHz. -30dBs	(B)	Enregistrer et reproduire un signal de 1kHz dans les conditions précisées en <2>.	(X87-1040) VR2 (G) VR1 (D)	Ajuster les résistances variables de façon à obtenir un niveau de lecture de -29dBs.	

ABGLEICH

NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	KASSETTENGERÄT-EINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN FÜR	ABB.
CASSETTEN-DECK-ABTEILUNG							
I AUFNAHME/WIEDERGABE-KOPF							
[1]	ENTMAGNETISIERUNG	–	–	POWER: OFF Den Kassettenfach deckel oben herausziehen.	AUFNAHME/ WIEDERGABE-Kopf	Entmagnetisierung von dem AUFNAHME/WIEDERGABE-Kopf mit einem Tonkopf Entmagnetisierungsdrossel.	
[2]	REINIGUNG	–	–	PLAY	AUFNAHME/ WIEDERGABE-Kopf Löschkopf, Tonwelle, Andruckrolle.	AUFNAHME/WIEDERGABE-Kopf, Löschkopf, Tonwelle und Andruckrolle mit einem leicht mit Alkohol befeuchteten Wattebausch reinigen.	
[3]	AZIMUT-EINSTELLUNG	MTT-256 10kHz. -20dB	(B)	PLAY	Azimut-Einstellschraube	Maximale	
GLEICHSTROMMOTOR							
(i)	BANDGESCHWINDIGKEIT	MTT-111 MTT-111D	(B)	PLAY	Trimmer potentiometer am Gleichstrommotor	Die Bandgeschwindigkeit so justieren, daß ein 3kHz Signal auf der Mitte des Bands erzeugt wird.	
II GEDRUCKTE SCHALTPLATTE							
<1>	WIEDERGABE-PEGEL	MTT-256 315Hz. 0dB	(B)	PLAY	(X87-1060) VR2 (L) VR1 (R)	Ausgangspegel: -9.0dBs	
<2>	LEERLAUFSTROM	(A) 1kHz. -30dBs 10kHz. -30dBs	(B)	REC LEVEL so justieren, daß der REC Monitorausgang -29dBs bei 1kHz wird, und danach abwechselnd Signale von 1kHz und 10kHz aufnehmen und wiedergeben.	(X28-1710) VR1 (L) VR2 (R)	Signale von 1kHz und 10kHz abwechselnd aufnehmen und die Regelwiderstände, die den Vormagnetisierugsstrom regeln, so justieren, daß der gleiche Wiedergabepegel erzielt wird.	
<3>	AUFNAHMEPEGEL	(A) 1kHz. -30dBs	(B)	Ein 1kHz Signal unter den in Punkt <2> beschriebenen Bedingungen aufnehmen und reproduzieren.	(X87-1040) VR2 (L) VR1 (R)	Die Regelwiderstände so justieren, daß ein wiedergabepegel von -29dBs erzielt wird.	

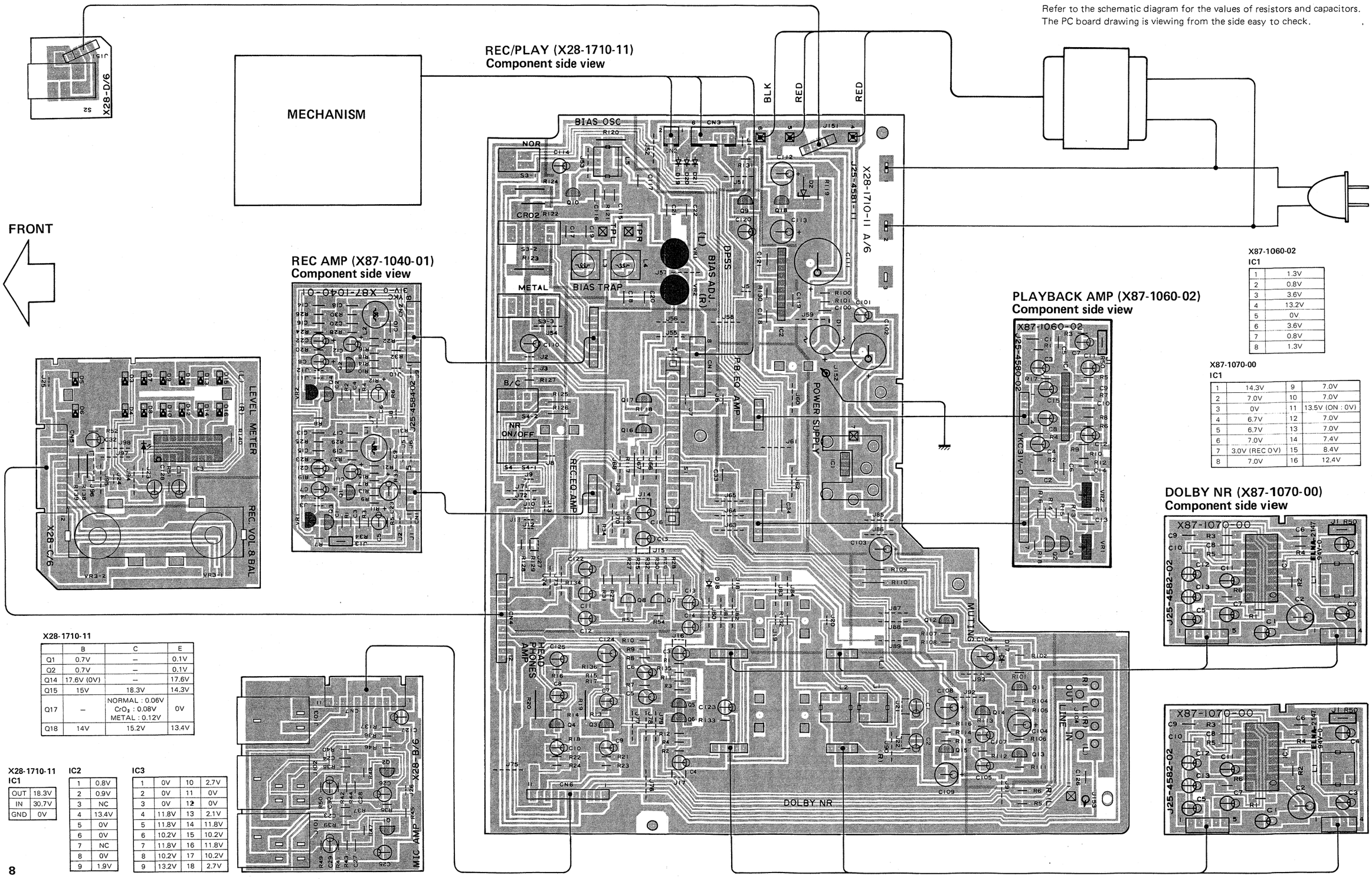
ADJUSTMENT/REGLAGE/ABGLEICH

SYSTEM CONNECTION



PC BOARD

Refer to the schematic diagram for the values of resistors and capacitors.
The PC board drawing is viewing from the side easy to check.



X87-1060-02
IC1

1	1.3V
2	0.8V
3	3.6V
4	13.2V
5	0V
6	3.6V
7	0.8V
8	1.3V

X87-1070-00
IC1

1	14.3V	9	7.0V
2	7.0V	10	7.0V
3	0V	11	13.5V (ON : 0V)
4	6.7V	12	7.0V
5	6.7V	13	7.0V
6	7.0V	14	7.4V
7	3.0V (REC 0V)	15	8.4V
8	7.0V	16	12.4V

X28-1710-11

	B	C	E
Q1	0.7V	–	0.1V
Q2	0.7V	–	0.1V
Q14	17.6V (0V)	–	17.6V
Q15	15V	18.3V	14.3V
Q17	–	NORMAL : 0.06V CrO_2 : 0.08V METAL : 0.12V	0V
Q18	14V	15.2V	13.4V

X28-1710-11
IC1

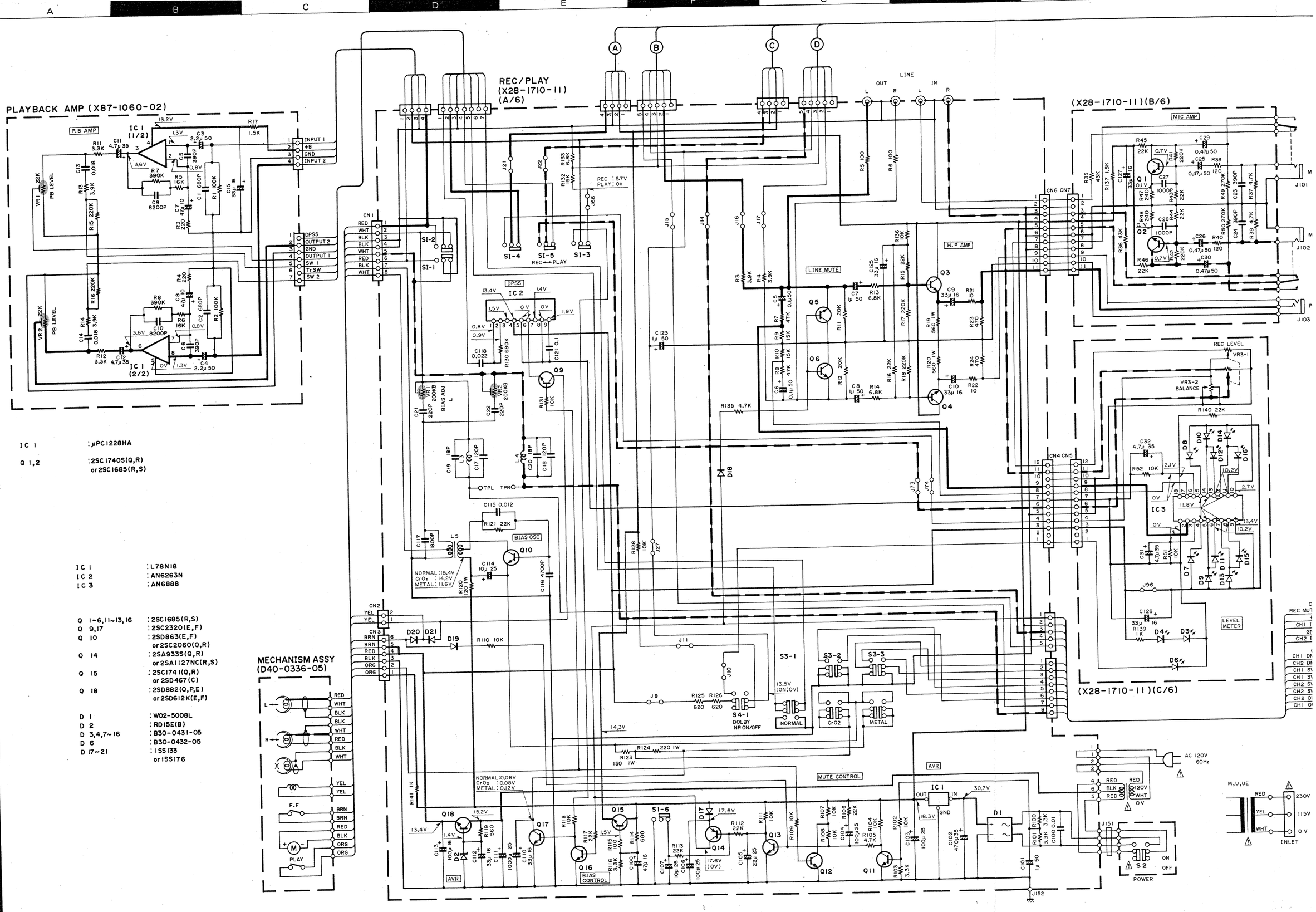
OUT	18.3V
IN	30.7V
GND	0V

IC2

1	0.8V
2	0.9V
3	NC
4	13.4V
5	0V
6	0V
7	NC
8	0V
9	1.9V

IC3

1	0V	10	2.7V
2	0V	11	0V
3	0V	12	0V
4	11.8V	13	2.1V
5	11.8V	14	11.8V
6	10.2V	15	10.2V
7	11.8V	16	11.8V
8	10.2V	17	10.2V
9	13.2V	18	2.7V



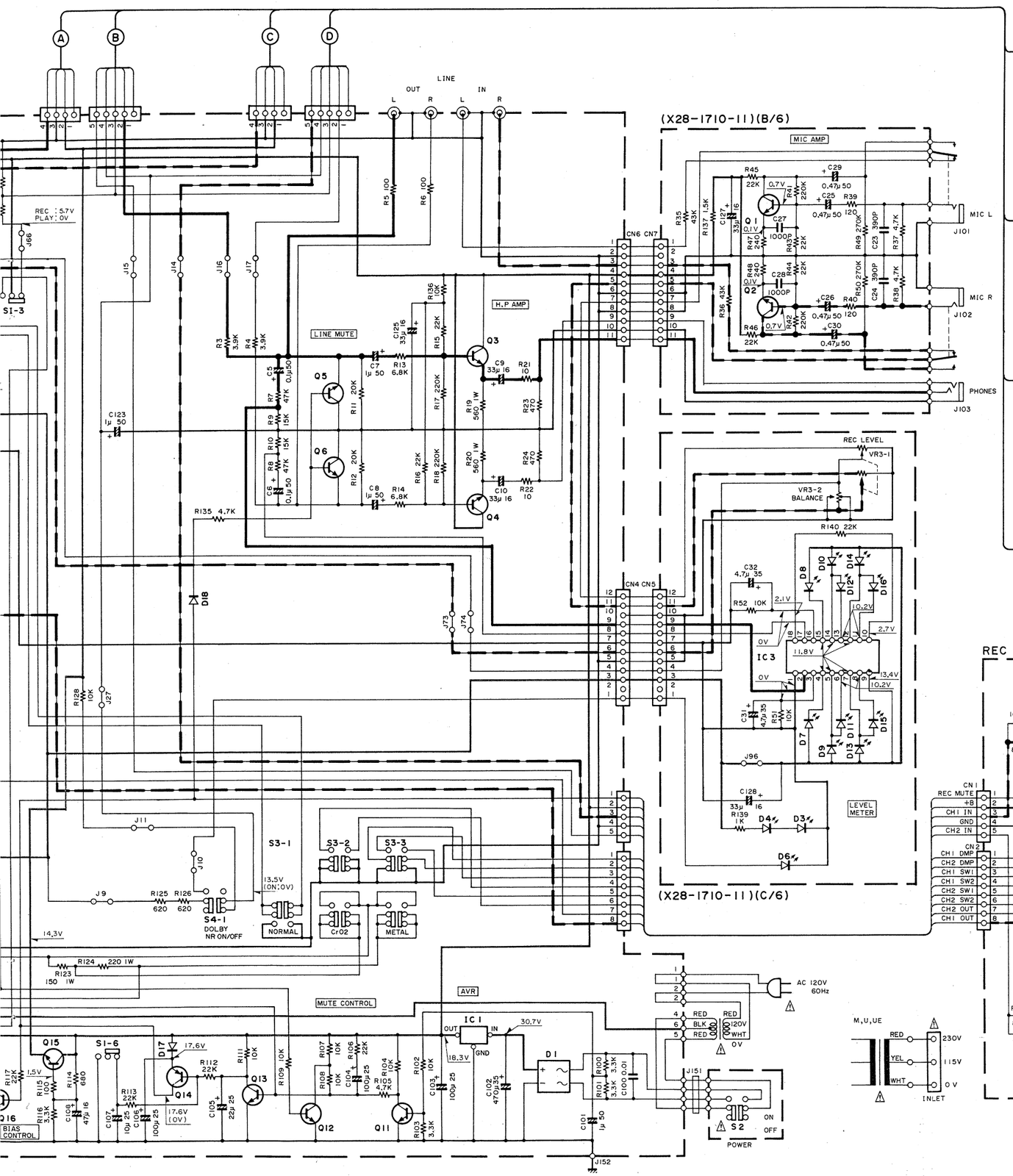
IC 1 : μPC1228HA

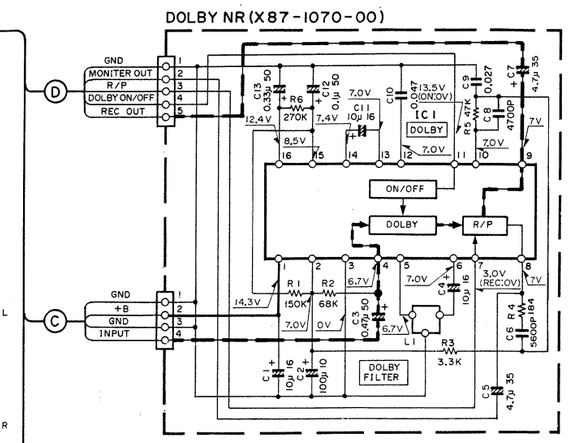
Q 1,2 : 2SC1740S(Q,R) or 2SC1685(R,S)

IC 1 : L78N18
IC 2 : AN6263N
IC 3 : AN6888

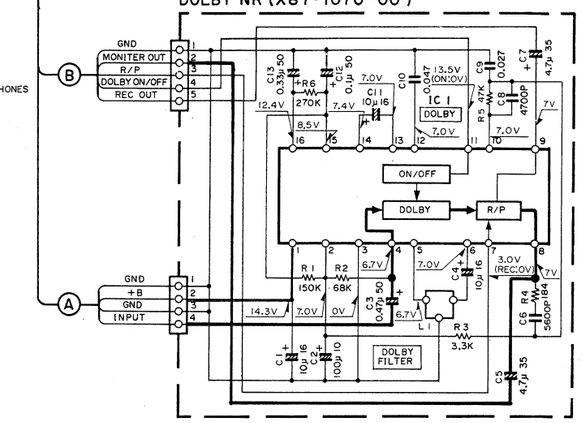
Q 1~6,11~13,16 : 2SC1685(R,S)
Q 9,17 : 2SC2320(E,F)
Q 10 : 2SD863(E,F) or 2SC2060(Q,R)
Q 14 : 2SA933S(Q,R) or 2SA1127NC(R,S)
Q 15 : 2SC1741(Q,R) or 2SD467(C)
Q 18 : 2SD882(Q,P,E) or 2SD612K(E,F)

D 1 : W02-5008L
D 2 : RD15E(B)
D 3,4,7~16 : B30-0431-05
D 6 : B30-0432-05
D 17~21 : 1SS133 or 1SS176

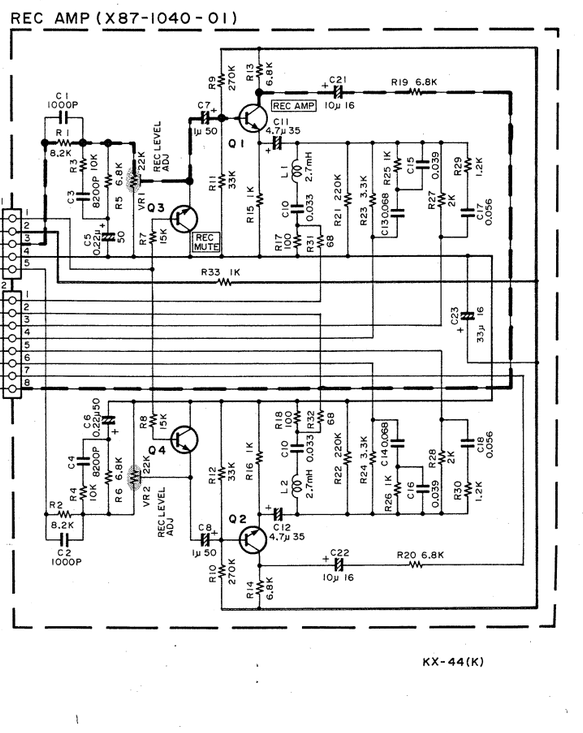




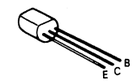
IC1 : TA7629P



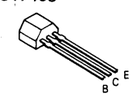
IC1 : TA7629P



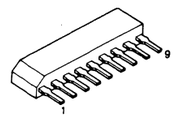
2SA1127NC 2SC1060 2SD612K
2SC1685 2SC2320 2SD882
2SC1741 2SC945(A)
2SC1845 2SD567
2SC1980 2SD863



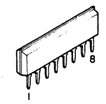
2SA933S
2SC1740S



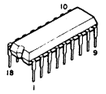
AN6263N



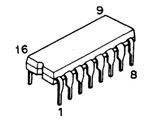
μPC1228HA



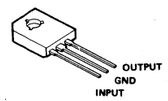
AN6888



TA7629P



L78N18



Q 1,2 : 2SC1845(F,E)
or 2SC1980(S,T)
Q 3,4 : 2SC1740S(Q,R)
or 2SC945(A)(Q,P)
or 2SC1685(R,S)

- DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in the record mode.

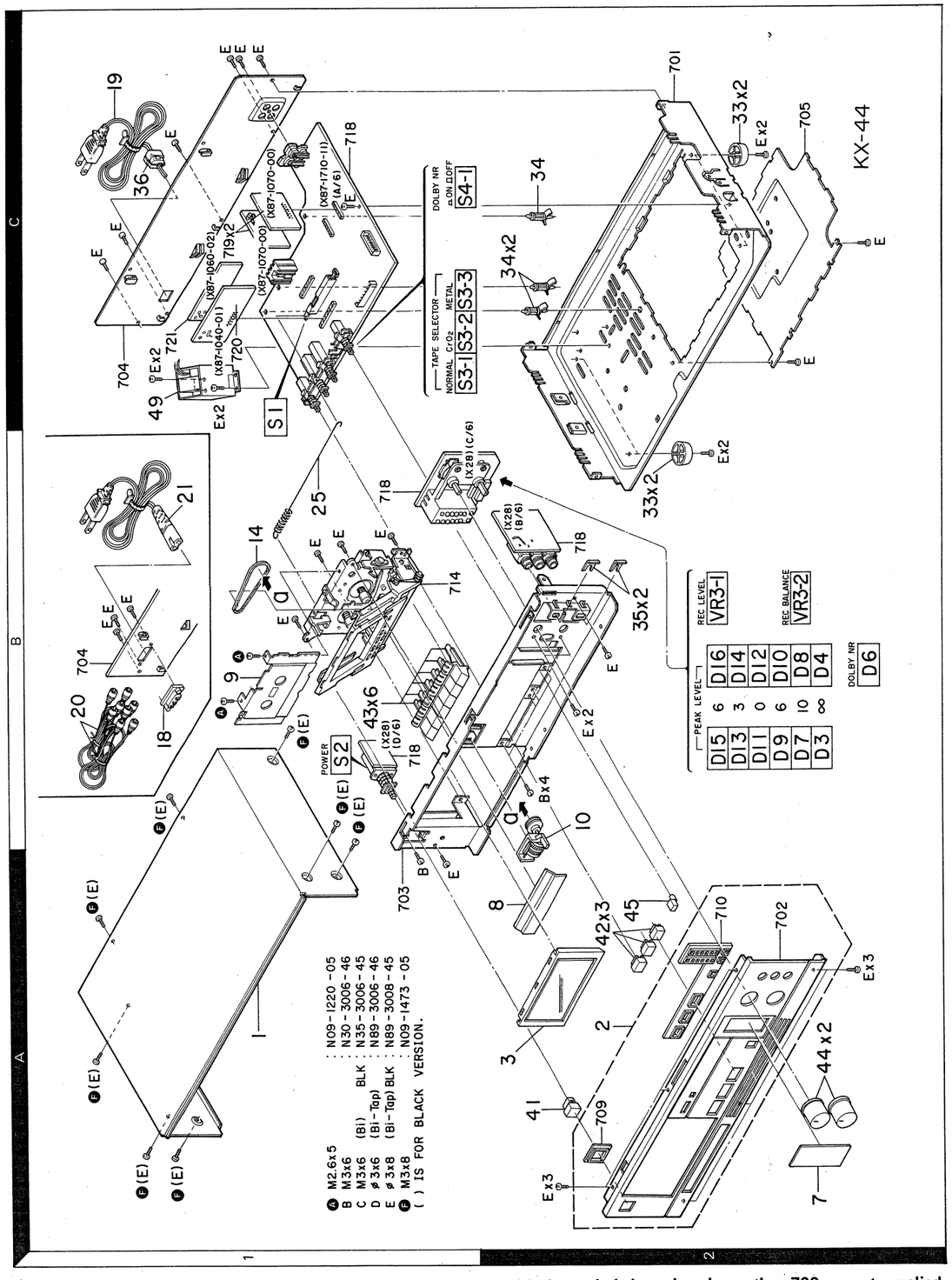
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KX-44(K)

KX-44

KENWOOD

EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

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			KX-44 (SILVER)			
1	1A		A01-1407-01	METALLIC CABINET		
2	2A	*	A20-4344-02	PANEL ASSY	KPUM	
2	2A	*	A20-4344-02	PANEL ASSY	UEXE	
2	2A	*	A20-4346-02	PANEL ASSY	T	
3	2A		A53-0703-04	CASSETTE LID		
7	2A		B03-1755-04	DRESSING PLATE(PEAK LVL METER)		
8	2A	*	B03-1793-04	DRESSING PLATE(CASSETTE HOLDER		
9	2A		B03-1818-04	DRESSING PLATE(MECHANISM)		
10	2B		B35-0033-05	TAPE COUNTER		
-			B46-0092-03	WARRANTY CARD	K	
-			B46-0094-03	WARRANTY CARD	UUE	
-			B46-0095-03	WARRANTY CARD	UUE	
-			B46-0096-03	WARRANTY CARD	X	
-			B46-0121-03	WARRANTY CARD	P	
-			B46-0122-13	WARRANTY CARD	E	
-			B46-0123-03	WARRANTY CARD	T	
-			B50-5643-10	INSTRUCTION MANUAL(ENGLISH)	KPUM	
-			B50-5643-10	INSTRUCTION MANUAL(ENGLISH)	UEXE	
-			B50-5644-10	INSTRUCTION MANUAL(FRENCH)	PMXE	
-			B50-5645-10	INSTRUCTION MANUAL(SPANISH)	M	
-			B50-5646-10	INSTRUCTION MANUAL(ENGLISH)	T	
-			B50-5647-10	INSTRUCTION MANUAL(G,D,I)	E	
-			B50-5648-10	INSTRUCTION MANUAL(ARABIC)	M	
-			B58-0222-14	CAUTION CARD (PRE-SET 220V)	UE	
-			B58-0223-04	CAUTION CARD (PRE-SET 120V)	U	
-			B58-0269-04	CAUTION CARD	K	
-			B58-0337-04	CAUTION CARD (FTZ)	E	
-			B59-0092-00	SERVICE DIRECTORY	UUE	
14	1B		D16-0242-04	BELT		
⚠ 18	1B		E03-0102-15	AC INLET	UMUE	
⚠ 19	1C		E30-0181-05	AC POWER CORD	KP	
⚠ 19	1C		E30-0459-05	AC POWER CORD	E	
⚠ 19	1C		E30-0587-15	AC POWER CORD	T	
⚠ 19	1C		E30-1341-05	AC POWER CORD	X	
20	1B		E30-0505-05	AUDIO CORD		
⚠ 21	1B		E30-1305-15	AC POWER CORD (INLET)	UMUE	
25	1B		G01-1610-04	EXTENSION SPRING		
			H20-0417-04	PROTECTION COVER(460X370X360)	M	
-		**	H01-5502-04	ITEM CARTON CASE	KPUM	
-		**	H01-5502-04	ITEM CARTON CASE	UEXE	
-		*	H01-5503-04	ITEM CARTON CASE	T	
-			H10-1794-02	POLYSTYRENE FOAMED FIXTURE		
-			H25-0223-04	PROTECTION BAG (750X350)	KPUUE	
-			H25-0223-04	PROTECTION BAG (750X350)	XTE	
-			H25-0232-04	PROTECTION BAG (235X350)		
-			H40-0005-04	RUST PREVENTING PAPER	M	
33	2B,2C		J02-0129-05	FOOT		
34	2C		J19-0508-05	UNIT HOLDER		
35	2B		J21-3326-05	JACK MOUNTING HARDWARE		
⚠ 36	1C		J42-0083-05	POWER CORD BUSHING	KPXTE	
-			J61-0307-05	WIRE BAND		

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			KX-44 (SILVER)			
1	1A		A01-1407-01	METALLIC CABINET		
2	2A	*	A20-4344-02	PANEL ASSY	KPUM	
2	2A	*	A20-4344-02	PANEL ASSY	UEXE	
2	2A	*	A20-4346-02	PANEL ASSY	T	
3	2A		A53-0703-04	CASSETTE LID		
7	2A		B03-1755-04	DRESSING PLATE(PEAK LVL METER)		
8	2A	*	B03-1793-04	DRESSING PLATE(CASSETTE HOLDER		
9	2A		B03-1818-04	DRESSING PLATE(MECHANISM)		
10	2B		B35-0033-05	TAPE COUNTER		
-			B46-0092-03	WARRANTY CARD	K	
-			B46-0094-03	WARRANTY CARD	UUE	
-			B46-0095-03	WARRANTY CARD	UUE	
-			B46-0096-03	WARRANTY CARD	X	
-			B46-0121-03	WARRANTY CARD	P	
-			B46-0122-13	WARRANTY CARD	E	
-			B46-0123-03	WARRANTY CARD	T	
-			B50-5643-10	INSTRUCTION MANUAL(ENGLISH)	KPUM	
-			B50-5643-10	INSTRUCTION MANUAL(ENGLISH)	UEXE	
-			B50-5644-10	INSTRUCTION MANUAL(FRENCH)	PMXE	
-			B50-5645-10	INSTRUCTION MANUAL(SPANISH)	M	
-			B50-5646-10	INSTRUCTION MANUAL(ENGLISH)	T	
-			B50-5647-10	INSTRUCTION MANUAL(G,D,I)	E	
-			B50-5648-10	INSTRUCTION MANUAL(ARABIC)	M	
-			B58-0222-14	CAUTION CARD (PRE-SET 220V)	UE	
-			B58-0223-04	CAUTION CARD (PRE-SET 120V)	U	
-			B58-0269-04	CAUTION CARD	K	
-			B58-0337-04	CAUTION CARD (FTZ)	E	
-			B59-0092-00	SERVICE DIRECTORY	UUE	
14	1B		D16-0242-04	BELT		
⚠ 18	1B		E03-0102-15	AC INLET	UMUE	
⚠ 19	1C		E30-0181-05	AC POWER CORD	KP	
⚠ 19	1C		E30-0459-05	AC POWER CORD	E	
⚠ 19	1C		E30-0587-15	AC POWER CORD	T	
⚠ 19	1C		E30-1341-05	AC POWER CORD	X	
20	1B		E30-0505-05	AUDIO CORD		
⚠ 21	1B		E30-1305-15	AC POWER CORD (INLET)	UMUE	
25	1B		G01-1610-04	EXTENSION SPRING		
			H20-0417-04	PROTECTION COVER(460X370X360)	M	
-		*	H01-5502-04	ITEM CARTON CASE	KPUM	
-		*	H01-5502-04	ITEM CARTON CASE	UEXE	
-		*	H01-5503-04	ITEM CARTON CASE	T	
-			H10-1794-02	POLYSTYRENE FOAMED FIXTURE		
-			H25-0223-04	PROTECTION BAG (750X350)	KPUUE	
-			H25-0223-04	PROTECTION BAG (750X350)	XTE	
-			H25-0232-04	PROTECTION BAG (235X350)		
-			H40-0005-04	RUST PREVENTING PAPER	M	
33	2B,2C		J02-0129-05	FOOT		
34	2C		J19-0508-05	UNIT HOLDER		
35	2B		J21-3326-05	JACK MOUNTING HARDWARE		
⚠ 36	1C		J42-0083-05	POWER CORD BUSHING	KPXTE	
-			J61-0307-05	WIRE BAND		

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41	2A		K29-1446-04	KNOB ASSY(BUTTON)POWER		
42	2A		K29-2023-04	KNOB ASSY(BUTTON)TAPE SELECT		
43	1B		K29-2051-04	KNOB (BUTTON) OPERATION KEY		
44	2A		K29-2087-04	KNOB REC LVL,REC BAL		
45	2A	*	K29-2090-04	KNOB (BUTTON) DOLBY NR		
⚠ 49	1C		L01-3051-05	POWER TRANSFORMER	KP	
⚠ 49	1C		L01-6712-05	POWER TRANSFORMER	XTE	
⚠ 49	1C		L01-6714-05	POWER TRANSFORMER	UMUE	
A	1B		N09-1220-05	TAPTITE SCREW (Ø2.6X5)		
F	1A		N09-1473-05	TAPPING SCREW (Ø3X8)		
			KX-44 (BLACK)			
1	1A	*	A01-1402-01	METALLIC CABINET		
2	2A	*	A20-4292-02	PANEL ASSY	KPUM	
2	2A	*	A20-4292-02	PANEL ASSY	UEXE	
2	2A	*	A20-4338-02	PANEL ASSY	T	
3	2A	*	A53-0703-04	CASSETTE LID		
7	2A	*	B03-1755-04	DRESSING PLATE(PEAK LVL METER)		
8	2A	*	B03-1754-04	DRESSING PLATE(CASSETTE HOLDER		
9	1B	*	B03-1818-04	DRESSING PLATE(MECHANISM)		
10	2B	*	B35-0033-05	TAPE COUNTER		
-			B46-0092-03	WARRANTY CARD	K	
-			B46-0094-03	WARRANTY CARD	UUE	
-			B46-0095-03	WARRANTY CARD	UUE	
-			B46-0096-03	WARRANTY CARD	X	
-			B46-0121-03	WARRANTY CARD	P	
-			B46-0122-13	WARRANTY CARD	E	
-			B46-0123-03	WARRANTY CARD	T	
-		*	B50-5643-10	INSTRUCTION MANUAL(ENGLISH)	KPUM	
-		*	B50-5643-10	INSTRUCTION MANUAL(ENGLISH)	UEXE	
-		*	B50-5644-10	INSTRUCTION MANUAL(FRENCH)	PMXE	
-		*	B50-5645-10	INSTRUCTION MANUAL(SPANISH)	M	
-		*	B50-5646-10	INSTRUCTION MANUAL(ENGLISH)	T	
-		*	B50-5647-10	INSTRUCTION MANUAL(G,D,I)	E	
-		*	B50-5648-10	INSTRUCTION MANUAL(ARABIC)	M	
-			B58-0222-14	CAUTION CARD (PRE-SET 220V)	UE	
-			B58-0223-04	CAUTION CARD (PRE-SET 120V)	U	
-			B58-0269-04	CAUTION CARD	K	
-			B58-0337-04	CAUTION CARD (FTZ)	E	
-			B59-0092-00	SERVICE DIRECTORY	UUE	
14	1B		D16-0242-04	BELT		
⚠ 18	1B		E03-0102-15	AC INLET	UMUE	
⚠ 19	1C		E30-0181-05	AC POWER CORD	KP	
⚠ 19	1C		E30-0459-05	AC POWER CORD	E	
⚠ 19	1C		E30-0587-15	AC POWER CORD	T	
⚠ 19	1C		E30-1341-05	AC POWER CORD	X	
20	1B		E30-0505-05	AUDIO CORD		
⚠ 21	1B		E30-1305-15	AC POWER CORD (INLET)	UMUE	
25	1B	*	G01-1610-04	EXTENSION SPRING		
			H20-0417-04	PROTECTION COVER(460X370X360)	M	
-		*	H01-5430-04	ITEM CARTON CASE	KPUM	
-		*	H01-5430-04	ITEM CARTON CASE	UEXE	
-		*	H01-5431-04	ITEM CARTON CASE	T	

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	-		*	H10-1794-02	POLYSTYRENE FOAMED FIXTURE		
	-			H25-0223-04	PROTECTION BAG (750X350)	KPUUE	
	-			H25-0223-04	PROTECTION BAG (750X350)	XTE	
	-			H25-0232-04	PROTECTION BAG (235X350)		
	-			H40-0005-04	RUST PREVENTING PAPER	M	
	33	2B,2C		J02-0129-05	FOOT		
	34	2C		J19-0508-05	UNIT HOLDER		
	35	2B		J21-3326-05	JACK MOUNTING HARDWARE		
⚠	36	1C		J42-0083-05	POWER CORD BUSHING	KPXTE	
	-			J61-0307-05	WIRE BAND		
	41	2A		K29-2001-04	KNOB ASSY(BUTTON)POWER		
	42	2A		K29-2022-04	KNOB ASSY(BUTTON)TAPE SELECT		
	43	1B		K29-2051-04	KNOB (BUTTON) OPERATION KEY		
	44	2A	*	K29-2053-04	KNOB REC LVL,REC BAL		
	45	2A	*	K29-2052-04	KNOB (BUTTON) DOLBY NR		
⚠	49	1C		L01-3051-05	POWER TRANSFORMER	KP	
⚠	49	1C	*	L01-6712-05	POWER TRANSFORMER	XTE	
⚠	49	1C		L01-6714-05	POWER TRANSFORMER	UMUE	
	A	1B		N09-1220-05	TAPTITE SCREW (Ø2.6X5)		
	REC/PLAY (X28-1710-11)						
	D3 ,4	2B		B30-0431-05	LED (LN21CPH)		
	D6	2B		B30-0432-05	LED (LN31GCPH(U))DOLBY B		
	D7 -16	2B		B30-0431-05	LED (LN21CPH) PEAK LEVEL		
	C5 ,6			CE04FW1H0R1M	ELECTRO 0.1UF 50WV		
	C7 ,8			CE04FW1H010M	ELECTRO 1.0UF 50WV		
	C9 ,10			CE04FW1C330M	ELECTRO 33UF 16WV		
	C17 ,18			CC45FSL1H121J	CERAMIC 120PF J		
	C19 ,20			CC45FSL1H180J	CERAMIC 18PF J		
	C21 ,22			CC45FSL1H221J	CERAMIC 220PF J		
	C23 ,24			CK45FB1H391K	CERAMIC 390PF K		
	C25 ,26			CE04FW1HR47M	ELECTRO 0.47UF 50WV		
	C27 ,28			CK45FB1H102K	CERAMIC 1000PF K		
	C29 ,30			CE04FW1HR47M	ELECTRO 0.47UF 50WV		
	C31 ,32			CE04FW1V4R7M	ELECTRO 4.7UF 35WV		
	C100			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C101			CE04FW1H010M	ELECTRO 1.0UF 50WV		
	C102			CE04FW1V471M	ELECTRO 470UF 35WV		
	C103,104			CE04FW1E101M	ELECTRO 100UF 25WV		
	C105			CE04FW1E220M	ELECTRO 22UF 25WV		
	C106			CE04FW1E101M	ELECTRO 100UF 25WV		
	C107			CE04FW1E100M	ELECTRO 10UF 25WV		
	C108			CE04FW1C470M	ELECTRO 47UF 16WV		
	C110			CE04FW1C330M	ELECTRO 33UF 16WV		
	C111			CE04FW1E102M	ELECTRO 1000UF 25WV		
	C112			CE04FW1C330M	ELECTRO 33UF 16WV		
	C113			CE04FW1C101M	ELECTRO 100UF 16WV		
	C114			CE04FW1E100M	ELECTRO 10UF 25WV		
	C115			CF92FV1H123J	MF 0.012UF J		
	C116			CF92FV1H472J	MF 4700PF J		
	C117		*	C91-0776-05	POLYPRO 1800PF J		
	C118			C91-0684-05	CERAMIC 0.022UF K		
	C121			CF92FV1H104J	MF 0.10UF J		
	C123			CE04FW1H010M	ELECTRO 1.0UF 50WV		

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C125			CE04FW1C330M	ELECTRO 33UF 16WV		
C127,128			CE04FW1C330M	ELECTRO 33UF 16WV		
J101,102			E11-0151-05	PHONE JACK (2P)		
J103			E11-0104-15	PHONE JACK (3P)		
J104			E13-0497-05	PHONO JACK (4P)		
L3 ,4			L40-2235-29	SMALL FIXED INDUCTOR(22MH,J)		
L5			L32-0315-05	BIAS OSCILATING COIL(85KHZ)		
R19 ,20			RS14KB3A561J	FL-PROOF RS 560 J 1W		
R120			RS14KB3A121J	FL-PROOF RS 120 J 1W		
R122			RD14GB2E4R7J	FL-PROOF RD 4.7 J 1/4W		
R123			RS14KB3A151J	FL-PROOF RS 150 J 1W		
R124			RS14KB3A221J	FL-PROOF RS 220 J 1W		
R138			R92-0209-05	FUSE RESIST 22 G 1/4W	XTE	
VR1 ,2	2B		R12-5047-05	TRIMMING POT.(220K)BIAS ADJ		
VR3	2B		R29-9012-05	POTENTIOMETER(A200K,B50K)REC		
S1	1C	*	S31-6016-05	SLIDE SWITCH (REC/PLAY)		
S2	1B		S40-2178-05	PUSH SWITCH (POWER)	UMUE	
S2	1B		S40-2182-15	PUSH SWITCH (POWER)	KPXTE	
S3	1C	*	S42-3096-05	MULTIPLE PUSH SWITCH(TAPE SEL)		
S4	1C	*	S40-2341-05	PUSH SWITCH (DOLBY B)		
D1			W02-5008L	DIODE		
D2			RD15E(B)	ZENER DIODE		
D17 -21			1SS133	DIODE		
D17 -21			1SS176	DIODE		
IC1		*	L78N18	IC(VOLTAGE REGULATOR/ +18V)		
IC2		*	AN6263N	IC(DPSS BLANK DETECT)		
IC3			AN6888	IC(2CH 5PT LEVEL METER DRIVER)		
Q1 -6			2SC1685(R,S)	TRANSISTOR		
Q1 -6			2SC1740S(Q,R)	TRANSISTOR		
Q9			2SC2320(E,F)	TRANSISTOR		
Q10			2SC2060(Q,R)	TRANSISTOR		
Q10			2SD863(E,F)	TRANSISTOR		
Q11 -13			2SC1685(R,S)	TRANSISTOR		
Q11 -13			2SC1740S(Q,R)	TRANSISTOR		
Q14			2SA1127NC(R,S)	TRANSISTOR		
Q14			2SA933S(Q,R)	TRANSISTOR		
Q15			2SC1741(Q,R)	TRANSISTOR		
Q15			2SD467(C)	TRANSISTOR		
Q16			2SC1685(R,S)	TRANSISTOR		
Q16			2SC1740S(Q,R)	TRANSISTOR		
Q17			2SC2320(E,F)	TRANSISTOR		
Q18			2SD612K(E,F)	TRANSISTOR		
Q18			2SD882(Q,P,E)	TRANSISTOR		
REC AMP (X87-1040-01)						
C1 ,2			C91-0652-05	CERAMIC 0.001UF K		
C3 ,4			C91-0674-05	CERAMIC 0.0082UF K		
C5 ,6			CE04FW1HR22MEL	ELECTRO 0.22UF 50WV		
C7 ,8			CE04FW1H010MEL	ELECTRO 1.0UF 50WV		
C9 ,10			C91-0688-05	CERAMIC 0.033UF K		
C11 ,12			CE04FW1V4R7MEL	ELECTRO 4.7UF 35WV		
C13 ,14			CF92FV1H683J	MF 0.068UF J		
C15 ,16		*	C91-0690-05	CERAMIC 0.039UF K		
C17 ,18			CF92FV1H563J	MF 0.056UF J		

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C21 ,22			CE04FW1V4R7MEL	ELECTRO 4.7UF 35WV		
C23			CE04FW1C330MEL	ELECTRO 33UF 16WV		
L1 ,2		*	L40-2725-29	SMALL FIXED INDUCTOR(2.7MH,J)		
VR1 ,2		*	R12-3101-05	TRIMMING POT.(22K) REC LEVEL		
Q1 ,2			2SC1845(F,E)	TRANSISTOR		
Q1 ,2			2SC1980(S,T)	TRANSISTOR		
Q3 ,4			2SC1685(R,S)	TRANSISTOR		
Q3 ,4			2SC1740S(Q,R)	TRANSISTOR		
Q3 ,4			2SC945(A)(Q,P)	TRANSISTOR		
PLAYBACK AMP (X87-1060-02)						
C1 ,2			CK45FB1H681K	CERAMIC 680PF K		
C3 ,4			CE04FW1H2R2M	ELECTRO 2.2UF 50WV		
C5 ,6			CK45FB1H391K	CERAMIC 390PF K		
C7 ,8			CE04FW1A470M	ELECTRO 47UF 10WV		
C9 ,10		*	C91-0674-05	CERAMIC 0.0082UF K		
C11 ,12			CE04FW1V4R7M	ELECTRO 4.7UF 35WV		
C13 ,14		*	C91-0682-05	CERAMIC 0.018UF K		
C15			CE04FW1C330M	ELECTRO 33UF 16WV		
VR1 ,2			R12-3101-05	TRIMMING POT.(22K) PB LEVEL		
IC1			UPC1228HA	IC(PREAMP FOR TAPE EQ X2)		
DOLBY NR (X87-1070-00)						
C1			CE04FW1C100M	ELECTRO 10UF 16WV		
C2			CE04FW1A101M	ELECTRO 100UF 10WV		
C3			CE04FW1HR47M	ELECTRO 0.47UF 50WV		
C4			CE04FW1C100M	ELECTRO 10UF 16WV		
C5			CE04FW1V4R7M	ELECTRO 4.7UF 35WV		
C6		*	C91-0670-05	CERAMIC 0.0056UF K		
C7			CE04FW1V4R7M	ELECTRO 4.7UF 35WV		
C8			C91-0668-05	CERAMIC 0.0047UF K		
C9		*	C91-0686-05	CERAMIC 0.027UF K		
C10			C91-0692-05	CERAMIC 0.047UF K		
C11			CE04FW1C100M	ELECTRO 10UF 16WV		
C12			CE04FW1H0R1M	ELECTRO 0.1UF 50WV		
C13			CE04FW1HR33M	ELECTRO 0.33UF 50WV		
L1			L79-0193-05	LC FILTER		
IC1			TA7629P	IC(DOLBY B NOISE REDUCTION)		

E: Scandinavia & Europe H:Audio Club K: USA P: Canada
S: South Africa T: England U: PX(Far East, Hawaii)
UE: AAFES(Europe) X: Australia M: Other Areas

⚠ indicates safety critical components.

SPECIFICATIONS

Type ..... Stereo cassette deck with Dolby NR System and Direct Program Search System
Track System ..... 4-track, 2-channel stereo/mono, recording/playback
Recording System ..... AC Bias System (Bias frequency: 85 kHz)
Erasing System ..... AC System
Tape Speed ..... 4.76 cm/sec (1-7/8 ips)
Heads ..... Record and Playback Head x 1 (Hard Permalloy)
Erase Head x 1 (Double gap ferrite)
Motor ..... Electronically controlled DC motor
Fast Winding Time ..... Approx. 105 seconds with C-60 tape
Frequency Response:
Normal Tape ..... 20 Hz to 15,000 Hz (30 Hz to 14,000 Hz, ±3 dB)
CrO_2 Tape ..... 20 Hz to 16,000 Hz (30 Hz to 15,000 Hz, ±3 dB)
Metal Tape ..... 20 Hz to 16,000 Hz (30 Hz to 15,000 Hz, ±3 dB)
Signal-to-Noise Ratio:
Dolby NR B ON ..... 64 dB (Metal Tape)
Dolby NR OFF ..... 56 dB (Metal Tape)
Harmonic Distortion ..... Less than 0.6% (at 1 kHz, 0 VU with Metal Tape)
Wow and Flutter ..... 0.09% (W.R.M.S) ±0.28% (DIN)
Input Sensitivity/Impedance:
LINE x 2 ..... 77.5 mV/50 kohms
Microphones x 2 ..... 0.8 mV/4.7 kohms
Output Level/Load Impedance:
LINE x 2 ..... 270 mV/3.9 kohms
Headphones x 1 ..... 0.2 mW/8 ohms
Power Consumption ..... 15 watts
Dimensions ..... W: 420 mm (16-9/16")
H: 123 mm (4-13/16")
D: 269 mm (10-9/16")
Weight ..... 3.8 kg (8.4 lb)
Supplied Accessories ..... Audio connection cord x 2
Reference Tapes ..... Normal: KENWOOD ND-60
TDK AD C-60
CrO_2: KENWOOD CD-60
TDK SA C-60
Metal: KENWOOD MD-60
TDK MA C-60

Kenwood follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.
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Le système de réduction du bruit de fond est fabriqué sous license des Dolby Laboratories.

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Dolby-Rauschnterdrückung mit Lizenz der Dolby Laboratories gefertigt.

Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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